



LOWER VILLAGE

Traffic + Design Upgrades

August 13, 2014



Project History | 2002 - 2011

2005 – 2006 | Fay, Spofford and Thorndike

- Completed traffic study
- Provided concepts of alternative scenarios, including roundabouts.

2009 – 2011 | Coler and Colantonio

- Roundabouts determined to be infeasible
- Alternative traffic concepts produced



Traffic Improvement Plan: Fay, Spofford and Thorndike

Lower Village Committee | 2002 – 2011

Learning from Past Studies...

Findings

- Temporary traffic islands can reduce traffic incidents
- Streetscape specifications can ensure a consistent look and feel
- Roundabouts determined to be infeasible due to site specific constraints

Action Steps

- Creation of Lower Village streetscape standards
- Installation of temporary traffic islands
- Improvements to sidewalks
- Expansion of Lower Common

Toward Final Design Plans | 2012 - Present

Lower Village Committee Goals

“Address visual, functional and safety issues through public-private partnerships and enhance business center vitality”

Planning Board Goals

“Create a convenient, safe and attractive district for Stow residents to shop and do business”



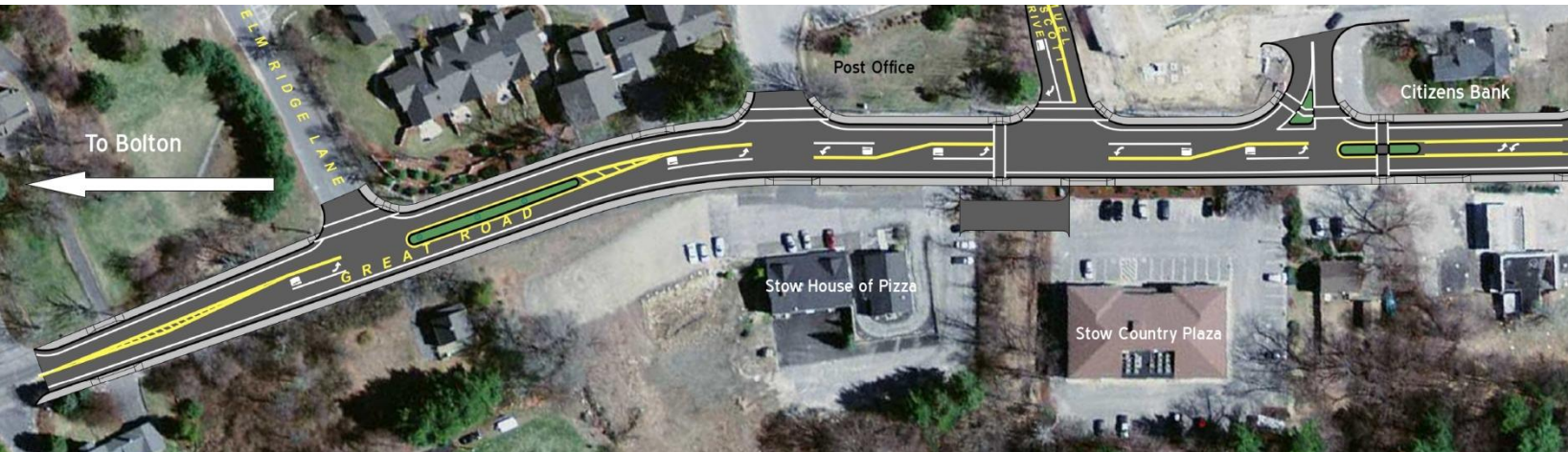
Final Design and Construction Plans | Project Goals

Howard/Stein–Hudson Associates, Inc.

Contracted in 2014 to produce “shovel ready” Lower Village Improvement Plans

- Refine and implement the previous conceptual plan
- Update traffic data
- Make traffic islands permanent
- Provide pedestrian and bike amenities while retaining rural character
- Apply for MassWorks Funding for construction

Lower Village Conceptual Plan | 2012

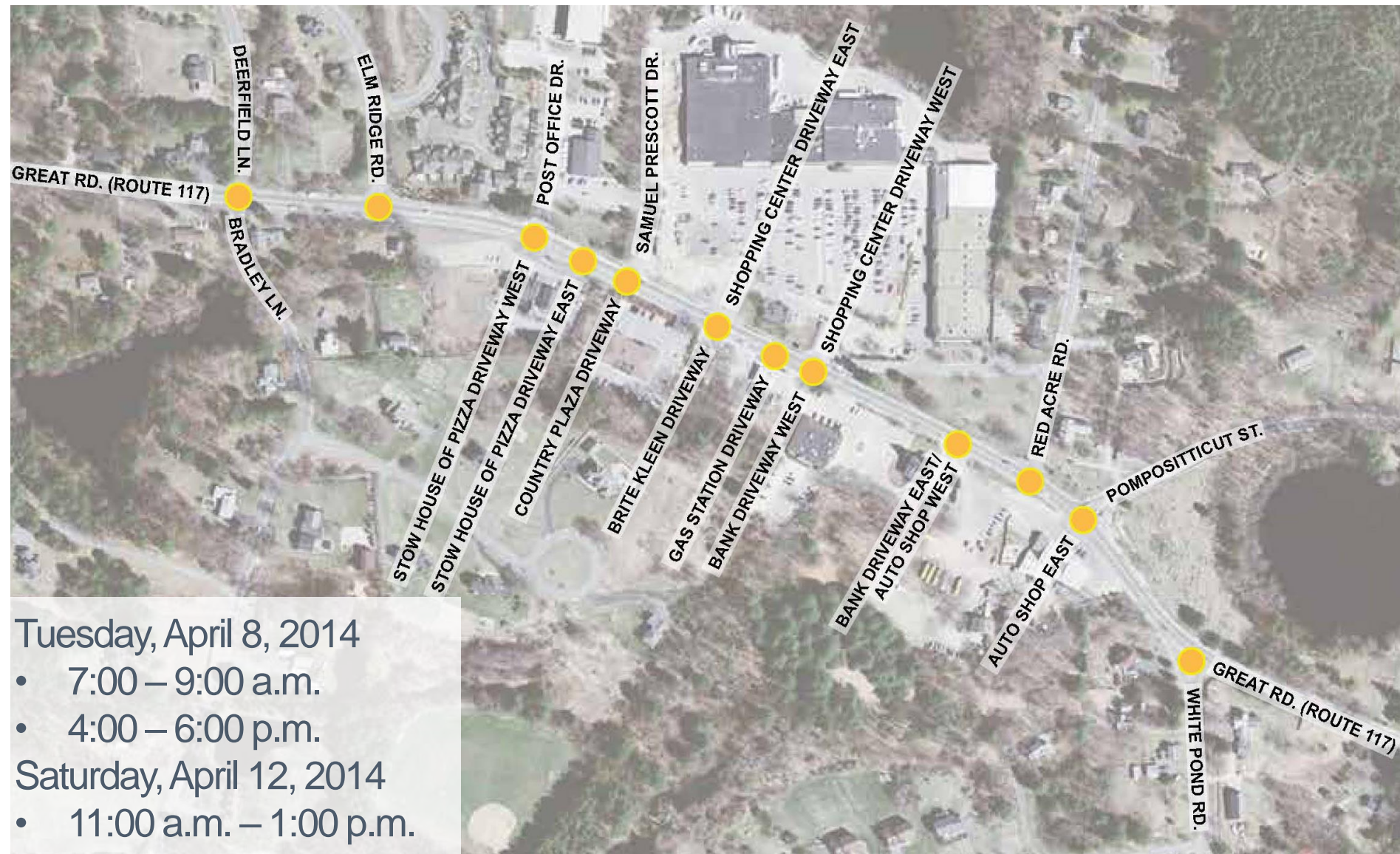


2012 Draft Traffic Improvement by Coler and Colantonio

25% Design Process

- Concept plan as starting point
- Land Survey (right of way)
- Detailed Data Collection
 - Traffic, pedestrian, and bicycle counts (April 2014)
 - Vehicle classification and speed
 - Weekday and Saturday traffic observations
 - Safety Analysis
- Collaboration with Town Planning and Public Works staff
- Input from key abutters and Town officials

Traffic Counts and Observations



Existing Conditions | Issues and Opportunities

Pedestrian Crossing Locations and Conditions



Existing Conditions | Issues and Opportunities

Pedestrian and Bicycle Conditions



Existing Conditions | Issues and Opportunities

Access Management



Existing Conditions | Issues and Opportunities

Red Acre Road



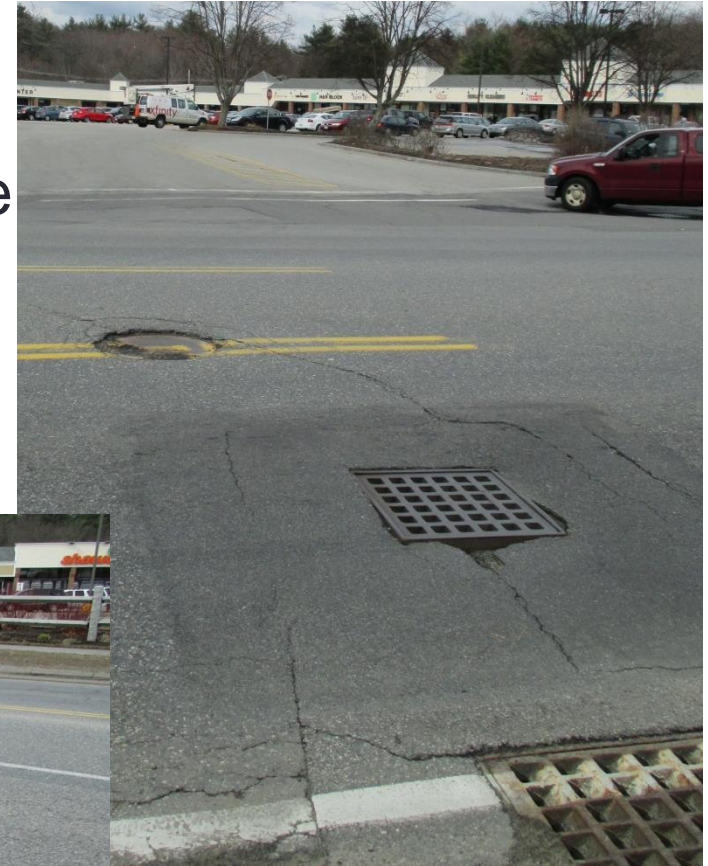
Pompositticut Street



Existing Conditions | Issues and Opportunities

Drainage

- Undersized 15" Drainage Trunk Line
- Antiquated corrugated metal pipe/infiltration



Existing Conditions | Data and Observations

Average daily traffic volume

- 16,210 in 2014 vs. 17,600 in 2006

Travel speeds consistent with speed limit

Vehicle Travel Speeds	Speed (mph)
Post Speed Limit	35
Average	32
85 th Percentile	37
95 th Percentile	40



Existing Conditions | Data and Observations

Safety

- Only 28 crashes corridor-wide 2009 - 2011
- Crash Rate well below state average

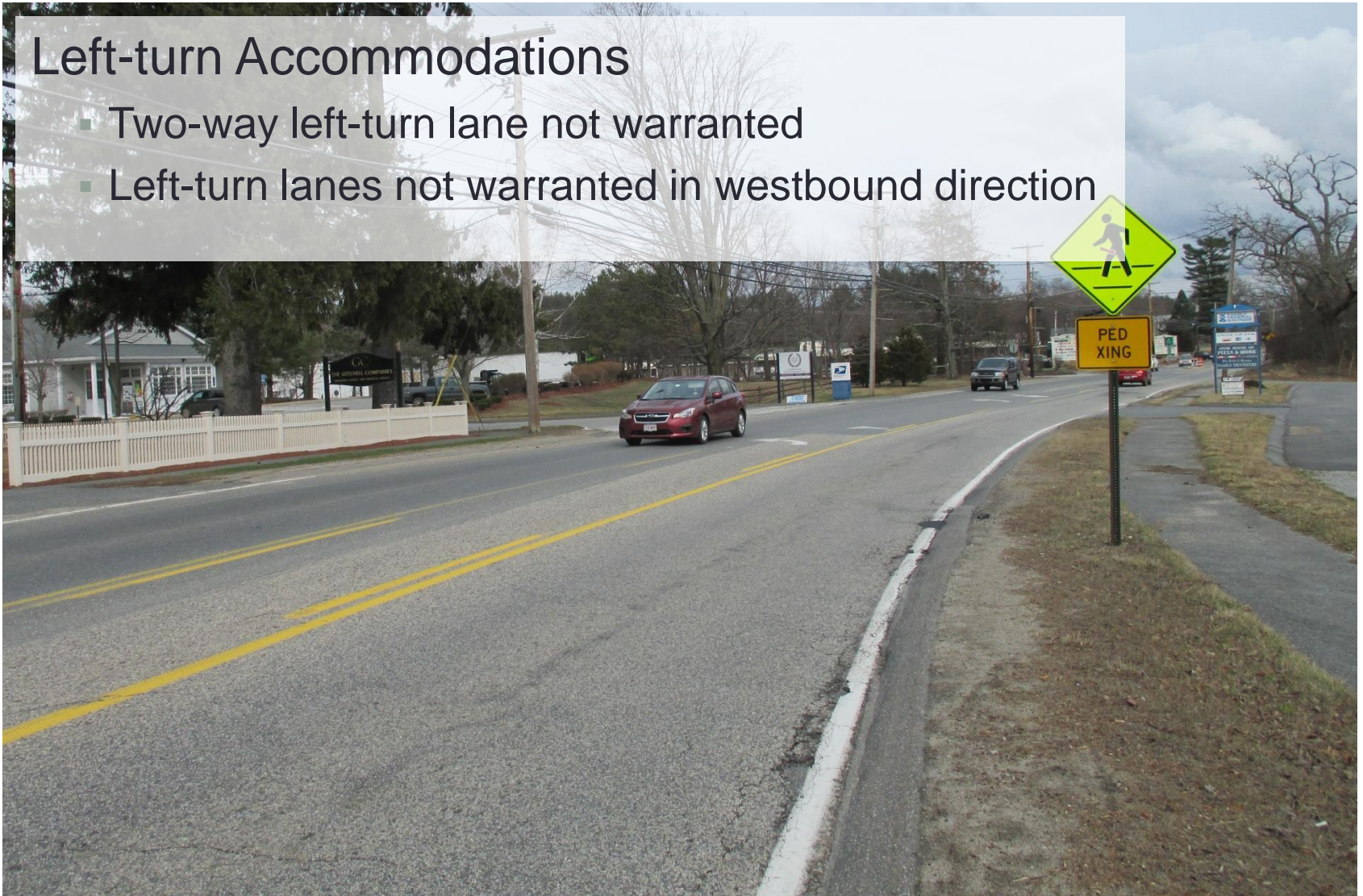
Pedestrian/Bicycle Activity

- Limited accommodations
- 6 pedestrians per hour along north side of Great Road
- 2 pedestrians per hour crossing Great Road
- 4 to 8 bicycles per hour along Great Road

Existing Conditions | Data and Observations

Left-turn Accommodations

- Two-way left-turn lane not warranted
- Left-turn lanes not warranted in westbound direction

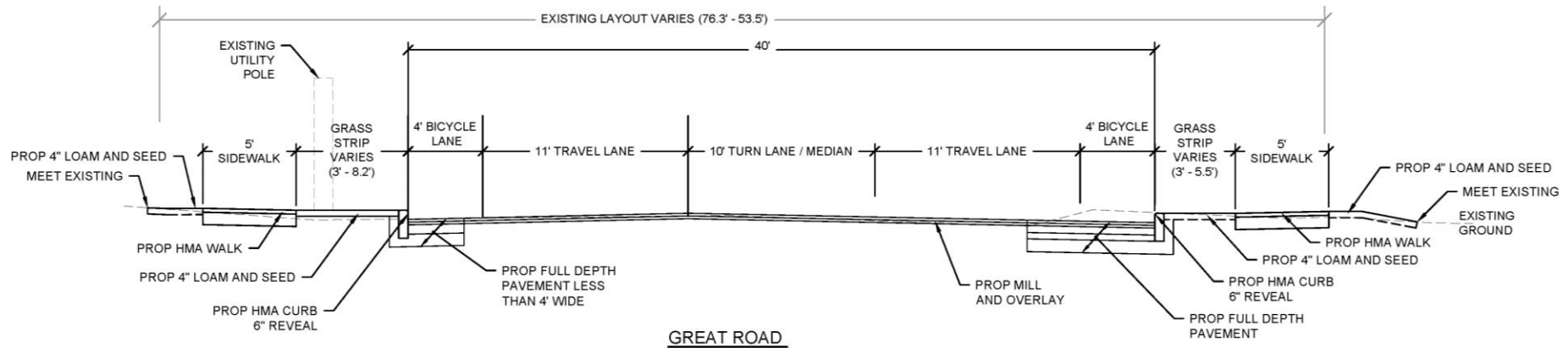


Proposed Complete Streets Design

- New ADA compliant sidewalks & ramps (both sides)
- Landscape buffer
- Formalize Median/protected crossings
- Reorganize turning lanes
- On-street bike accommodation (4-foot bike lanes)
- New drainage system
- No utility pole relocations

Proposed Typical Section

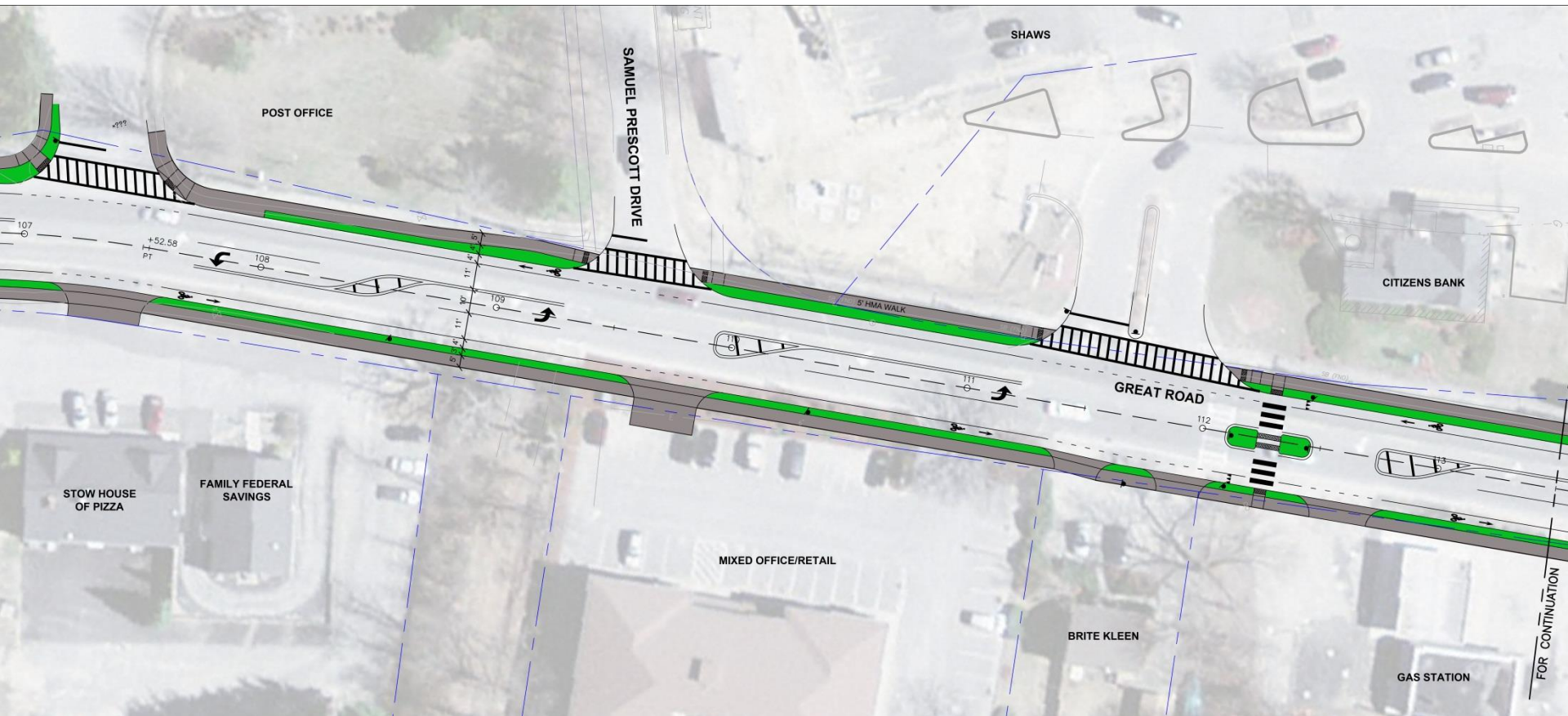
(Facing east)



Lower Village 25% Design



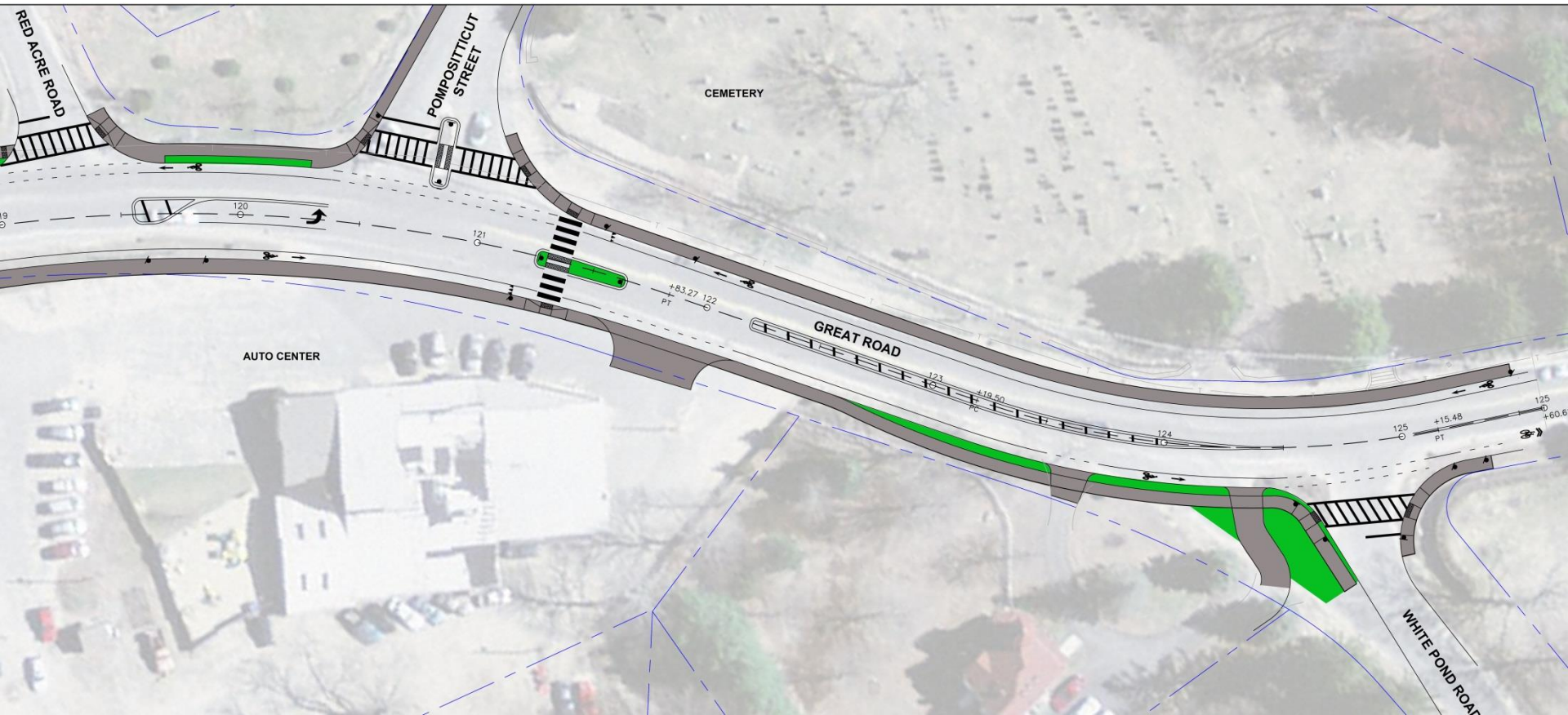
Lower Village 25% Design



Lower Village 25% Design



Lower Village 25% Design



Next Steps | Comprehensive Upgrades

August 2014

- Incorporate public comment for 75% Design
- Complete MassWorks Grant Application

Fall 2014

- Work with business owners on public water supply exploration and lease.

Fall 2014 – Winter 2015

- Incorporate Visual Preference Survey into zoning improvements and design guidelines

